IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re: Heinrich Lang Serial No.: 10/628,862 Filed: 07/28/2003 For: INTERNALLY MOUNTED, MOVABLE CAMERA FOR VEHICLES	Examiner: Rao, Anand Shashikant Group No.: 2621 Docket No.: (LMX-151) 022946.00242

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

APPEAL FROM THE FINAL REJECTION OF 06/18/2007

1. *Party of Interest:*

The real party of interest is Lang Mekra North America, LLC

2. *Related Appeals and Interferences:*

There are no other appeals or interferences which affect or will be affected by the Board's decision known to Appellant.

3. *Status of Claims:*

Claims 1-13 were originally filed. In the response of 3/22/2007, claims 1, 6, 9, 10 and 11 are cancelled. New claims 14-16 are presented and claims 2-5, 7, 8, 12 and 13 are amended. Accordingly, claims 2-5, 7, 8 and 12-16 remain. Claims 2-4, 7, 8 and 12-16 stand rejected under 35 USC 103(a). Claim 5 is not rejected and is presumed to be directed to allowable subject matter and would be allowed if written in independent form to include parent claim 16.

4. *Status of Amendments:*

All amendments are entered.

5. *Summary of the Claimed Subject Matter:*

The instant invention is directed to a movable camera carried by the upper area or top of a cargo containment and is movable between an extended position and a retracted position. See page 1, paragraphs 1 and 2.

In commercial vehicles, the cargo container can partially block the rear view or line of sight. At times, these vehicles must be precisely driven such as when backing to a loading ramp. The salvation to these problems as solved by the instant invention is to install a camera in the upper rear of the container and transmit the image of the area of restricted vision to the driver. See page 1, paragraph 4 and page 2, paragraphs 1 and 2.

The camera is mounted within the container in a position to prevent damage by external conditions. This presents a problem with the rear cover or door of the container. Accordingly, accommodations must be made to provide a closable opening in the back cover in the area of the camera and a mounting structure operative to move the camera between in and out positions. See page 2, paragraph 5 and page 3, paragraph 3.

More specifically, the invention includes a commercial vehicle cargo container having a normally covered front and sides with an open rear. A tarpaulin 2a is provided to hang from the top portion of container 2 to hang in a vertical position to cover the rear opening. See page 4, paragraphs 9 and 10.

The movement apparatus 4 is mounted within the cargo space in an upper rear

area of the cargo area. The camera 3 is mounted on the movement apparatus for longitudinal movement between interior and exterior positions.

A flap 2b is provided in the tarpaulin 2a opposite the camera. The camera is provided with member 5. Movement of the camera to the exterior position causes mechanism 5 to engage the flap and clear an opening for the camera 3 to move to an exterior position. See Figs. 1-3, page 4, paragraph 10 and page 6, paragraph 5.

Another arrangement, shown in Figs. 4 and 5 and described on page 7, paragraphs 1, 2 and 5, provides that the movement apparatus 4 is a rotating drive which pivots camera 3 about an axis from an inside position to an outside position. As the camera rotates, it engages flap 2b and raises the flap providing a clear field.

A slightly altered arrangement is shown in Figs 6-7 and described on page 8, paragraphs 2-4. In this case, camera 3 is mounted on movement apparatus 4 which rotates the camera between, in and about positions. Apparatus 4 carries camera 3 on a side which protects the camera when in the in position and directs it in a more vertical downward position when rotated into the exterior position.

Primarily, the invention presents the concept that when mounting a camera for assisting in the rear view of a commercial vehicle the camera must be mounted in the upper rear of a cargo container of the vehicle to allow full access to the cargo area and protection of the camera from damage by the cargo. Also, the arrangement includes an opening within the tarpaulin and a closure, which closure is operative to be moved by the motion of the camera when the camera is moved to the external position.

6. *Grounds of Rejection to be Reviewed:*

The rejection of claims 2, 3, 7, 12-16 under 35 USC 103(a) as unpatentable over

Michimoto (JP 56,099,835) in view of Robison (4,277,804).

Claim 4 stands rejected under 35 USC 103(a) as unpatentable over JP '835 (Michimoto) in view of Robison, and further in view of JP '740 (Hiroyuki).

Claim 8 stands rejected under 35 USC 103(a) as unpatentable over th JP '835 (Michimoto) in view of Robison, and further, in view of Lechner '903.

Claims 2, 3, 7, 12-16 stand rejected under 35 USC 103(a) as unpatentable of JP '835 (Michimoto) in view of Robison '804.

7. *Arguments:*

Both references, the Michimoto reference and the Robison reference miss the concept of the instant invention. Neither reference mounts the camera in an upper rear area of the cargo container, thereby missing the concept of positioning the camera in a position to not interfere with the cargo being loaded and unloaded and in a position to not be damaged by the loading and unloading of the cargo. Also, by mounting the camera in an elevated position, a more complete view of the blocked or shielded area is possible.

The '835 JP reference discloses a camera 1 and camera mount structure, gears 3 and 4, motor 2 supporting shaft 5, guide rail 6, rod 8, solenoid 7, all of which is mounted in the trunk of an automobile. As is clearly shown, the arrangement is mounted on the floor of the truck with the camera positioned to move on a plane slightly above the rear bumper. Clearly, the camera and camera mounting apparatus are positioned so as to interfere with and possibly be damaged by the loading and unloading of cargo into and out of the trunk. The camera is positioned so as to possibly be damaged by the loading and unloading of cargo.

In the JP reference, lid 10 is mounted on trunk cover 9 and opens to allow the camera to exit the trunk and closes to protect the camera against outside conditions. Lid 10 is driven between positions by lever 11 which is driven between open and closed positions by solenoid 7. It is unclear just how trunk lid 9 opens as lever 11 and solenoid 7 appear to be mounted in a compartment secured with the floor of the trunk. It would appear that lever 11 would prevent the trunk lid 9 from being raised. In operation, the camera carriage is longitudinally driven by solenoid 7. Motor 2 causes the camera to move from left to right. Drive 7 also drives linkage 11 to raise and lower lid 10.

The patent to Robison is directed to a viewing system for blind areas at the rear of vehicles. The arrangement includes a camera assembly 17 mounted to an inside surface of the rear door 16 at approximately its mid-point. The camera has a viewing axis 42 shown in Fig. 1 extending from the mid-point of door 16. The camera is stationary within chamber 23 and utilizes mirrors to obtain its field of view. This reference does not teach positioning the camera and camera control in an upper rear area of a cargo compartment.

Turning now to independent claim 16, the claim includes the following limitations which are believed to define the claim over the references of the rejection and the rejection.

Claim 16 calls for a camera assembly for use with a cargo assembly of a commercial vehicle including "movement apparatus, secured with an upper rear area of said cargo container, mounting a camera within said cargo container." No reference of the rejection teaches this arrangement. Not the JP '835 reference which teaches mounting the movement apparatus along with the camera on the floor of the trunk of a

passenger vehicle. Not the Robison reference which teaches mounting a stationary camera within a container at approximately the mid-point of a container door.

The claim calls for a closure "to normally extend in a generally vertical position" and having "a normally closed opening in an upper area generally axially aligned with said movement apparatus and said camera." Again, no reference of the rejection teaches this structure. The JP '835 reference does not teach a closure which normally extends in a vertical direction as the angle of the majority of the trunk lid extends at best at about 45°. Further, the closure in the JP '835 arrangement is not arranged in an upper area of the closure but at its lower end.

The Robison reference provides no help satisfying these failings of the JP reference as there is no opening in an upper area axially aligned with movement apparatus.

For the above stated reasons, it is felt that the claim clearly defines over the references of the rejection.

Claims 2-4, 7, 8, 12 and 13 all depend from claim 16 and are believed to define over the references of the rejection for the stated reasons.

Claim 8 is rejected under 35 USC 103(a) as unpatentable over the JP '835 reference in view of Robison and further in view of Lechner.

Claim 8 is believed to further define over the references of the rejection as it calls for the closure to be a tarpaulin. The closures of both references are of solid material. The Lechner '903 reference teaches the use of a tarpaulin. It does not, however, suggest a tarpaulin with a closable opening in an upper area.

Claim 13 is believed to further define over the references of the rejection as it

calls for the closure to be self-closing. In the JP reference, the closure is driven, while Robison has no closure.

Turning now to independent claim 14, the claimed structure, which is not taught by the references of the rejection, is here pointed to.

Claim 14 calls for a camera assembly for use with a commercial vehicle having an upstanding cargo container having an open rear and "movement apparatus, secured with an upper rear area of said cargo container, mounting a camera within said upper rear area." This limitation was discussed re: claim 16.

Also, "a closure, having a hinged flap, secured with said rear of said cargo container," and "movement apparatus operative upon actuation to move said camera from inside to outside said cargo container, said camera, during movement, being operative to engage and pivot said hinged flap forming an opening through said closure." In Robison, there is no camera movement. In the JP reference, direct linkage drives the flap between open and closed positions. The camera does not engage or cause to pivot the hinged flap.

Claim 15, which depends from claim 14, includes the further limitation "said movement apparatus has a rotary drive which moves said camera along an arcuate path." In Robison, the camera is stationary. In the JP reference, the movement is linear.

Claims 14 and 15 are believed to define over the rejection and the references of the rejection for the reasons set forth.

Claim 14 stands rejected under 35 USC 103(a) as unpatentable over JP '835 in view of Robison and further, in view of JP '740.

It is urged that the rejection of claims 2-4, 7, 8, 12-16 be reversed and the claims be found to be allowable over the rejections for the reasons set forth.

8. *Appendix of Claims:*

Claim 1 (cancel):

Claim 2 (currently amended): ~~A camera assembly~~ An assembly in accord with claim 16 ~~claim 1~~, ~~therein characterized, in that~~ wherein the movement apparatus has a linear drive.

Claim 3 (currently amended): ~~A camera assembly~~ An assembly in accord with claim 16 ~~claim 1~~, ~~therein characterized, in that~~ wherein the movement apparatus has a rotary drive.

Claim 4 (currently amended): ~~A camera assembly~~ An assembly in accord with claim 16, wherein ~~at least one of the foregoing claims, therein characterized, in that~~ the movement apparatus is energized by means of a shifting of the commercial vehicle into a reverse gear.

Claim 5 (currently amended): ~~A camera assembly~~ An assembly in accord with claim 16, wherein ~~at least one of the foregoing claims, therein characterized, in that~~ the movement apparatus can be manually energized ~~or deenergized~~ and deenergized ~~by the~~ by a driver of the commercial vehicle.

Claim 6 (cancel)

Claim 7 (currently amended): ~~A commercial vehicle (1) in accord with claim 6, therein characterized in that the cargo container structure (2) has a~~ An assembly according to claim 14 wherein said closure is rigid ~~rear side (2a)~~.

Claim 8 (currently amended): ~~A commercial vehicle (1) in accord with claim 6,~~

~~therein characterized, in that the cargo container structure (2) is of tarpaulin frame construction, in which at least the rear side (2a) possesses a rear~~ An assembly according to claim 14 wherein the closure comprises a tarpaulin.

Claim 9-11 (cancel)

Claim 12 (currently amended): ~~A commercial vehicle in accord with claims 10 or 11, therein characterized, in that the movable rear plate (2b)~~ An assembly according to claim 14 wherein said closure is rotatable about an axis ~~(A),~~ which is essentially normal to the longitudinal axis of the commercial vehicle.

Claim 13 (currently amended): ~~A commercial vehicle in accord with one of the claims 9 to 12, therein characterized, in that the opening~~ The assembly according to claim 14 wherein said closure is self closing~~, especially by means of magnetic strips and/or by Velcro® closures or its equivalent~~.

Claim 14 (new): A camera assembly for use with a commercial vehicle having an upstanding cargo container having an open rear comprising:

movement apparatus, secured with an upper rear area of said cargo container, mounting a camera within said upper rear area of said cargo container;

a closure, having a hinged flap, secured with said rear of said cargo container, said flap being movable between open and closed positions; wherein,

said movement apparatus is operative upon actuation to move said camera from inside to outside said cargo container, said camera during said movement being operative to engage and pivot said hinged flap forming an opening through said closure positioning said camera positioned to capture a defined field of vision to include a rear portion of said commercial vehicle and an area adjacent thereto.

Claim 15 (new): The assembly according to claim 14 wherein said movement apparatus has a rotary drive and moves said camera along an arcuate path radially spaced from its axis of rotation.

Claim 16 (new): A camera assembly for use with a cargo container of a commercial vehicle comprising:

movement apparatus, secured with an upper rear area of said cargo container, mounting a camera within said cargo container;

a closure secured with a rear area of said cargo container to normally extend in a generally vertical position, said closure having a normally closed opening in an upper area generally axially aligned with said movement apparatus and said camera; wherein,

actuation of said movement apparatus moves said camera through said opening and out of said cargo container into a position to capture a defined field of vision in a rear area behind and adjacent said commercial vehicle.

9. *Evidence Appendix*

(None)

10. *Related Proceedings Appendix*

(None)

Favorable consideration is respectfully requested.

Respectfully submitted,

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